

U.S. Department of Commerce, Patent and Trademark Office (PTO Form 1449 modified)	Docket No. APPM/6303	Serial No. 09/965,370
SUPPLEMENTAL LIST OF PATENTS AND PUBLICATIONS CITED BY APPLICANT	Applicant Chung, et al.	Confirmation No. Unknown
(Use several sheets if necessary)	Filing Date 09/26/2001	Group Unknown
Examiner Unknown		

U.S. Patent Documents

*Examiner Initial	Document Number	Issue Date	Applicant(s) Name	Class	Subclass	Filing Date If Appropriate	
EF	A1	2001/0042799	11/22/2001	Kim, et al.	239	553	02/02/2001
	A2						
	A3						
	A4						
	A5						
	A6						
	A7						
	A8						
	A9						
	A10						
	A11						
	A12						
	A13						

Foreign Patent Documents

*Examiner Initial	Document Number	Date	Country	Class	Subclass	Translation	
						YES	NO
	B1					<input type="checkbox"/>	<input type="checkbox"/>
	B2					<input type="checkbox"/>	<input type="checkbox"/>
	B3					<input type="checkbox"/>	<input type="checkbox"/>
	B4					<input type="checkbox"/>	<input type="checkbox"/>
	B5					<input type="checkbox"/>	<input type="checkbox"/>

OTHER ART

*Examiner Initial	Including Author, Title, Date, Pertinent Pages, Etc.
	C1
	C2

Examiner's Initials and Date of Examination are required. If the applicant is not in compliance with the requirements of the Act, the Commissioner may refuse to issue a patent and may not consider the application. Include copy of this form with your communication to applicant.

11/14/03

Sheet 1 of 1 sheet(s)

U.S. Department of Commerce, Patent and Trademark Office (PTO Form 1449 modified)		Docket No. AMAT/6303	Serial No. 09/965,370
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		Applicant Chung, et al.	Confirmation No.: 6507
(Use several sheets if necessary)		Filing Date 09/26/2001	Group 1762
Examiner	Unknown		

U.S. Patent Documents

*Examiner Initial	Document Number	Issue Date	Applicant(s) Name	Class	Subclass	Filing Date If Appropriate	
EF	A1	5,529,955	06/25/1996	Hibino, et al.	437	195	08/25/1994
	A2						
	A3						
	A4						
	A5						
	A6						
	A7						
	A8						
	A9						
	A10						
	A11						
	A12						
	A13						

RECEIVED
JUL 22 2003
TC 1700

Foreign Patent Documents

*Examiner Initial	Document Number	Date	Country	Class	Subclass	Translation	
						YES	NO
	B1					<input type="checkbox"/>	<input type="checkbox"/>
	B2					<input type="checkbox"/>	<input type="checkbox"/>
	B3					<input type="checkbox"/>	<input type="checkbox"/>

OTHER ART

*Examiner Initial	Including Author, Title, Date, Pertinent Pages, Etc.
EF	C1 R.C. Ellwanger, "An Integrated Aluminum/CVD-W Metallization Process For Sub-Micron Contact Filling", June 11-12, 1991 IEEE Catalog No. 91 TH0359-0, pages 41-50.
EF	C2 Kaanta, et al. "Dual Damascene A/D S/Wiring Technology" June 11-12, 1991 VMI

Examiner

Date Considered

11/18/03

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with your communication to applicant.



Sheet 1 of 11 sheet(s)

U.S. Department of Commerce, Patent and Trademark Office (PTO Form 1449 modified)				Docket No. APPM/6303		Serial No. 09/965,370	
SUPPLEMENTAL LIST OF PATENTS AND PUBLICATIONS CITED BY APPLICANT				Applicant Chung, et al.		Confirmation No.: Unknown	
(Use several sheets if necessary)				Filing Date September 26, 2001		Group Unknown	
Examiner Unknown							
U.S. Patent Documents							
*Examiner Initial		Document Number	Issue Date	Applicant(s) Name	Class	Subclass	Filing Date If Appropriate
CS	A1	4,813,846	03/21/89	Helms	414	744.1	04/29/87
	A2	4,917,556	04/17/90	Stark et al.	414	217	05/26/89
	A3	4,951,601	08/28/90	Maydan, et al.	118	719	06/23/89
	A4	5,000,113	03/19/91	Wang et al.	118	723	12/19/86
	A5	5,186,718	02/16/93	Tepman et al.	29	25.01	04/15/91
	A6	5,205,077	04/27/93	Wittstock	51	165 R	08/28/91
	A7	5,234,561	08/10/93	Randhawa et al.	204	192.38	08/25/88
	A8	5,259,881	11/09/93	Edwards, et al.	118	719	05/17/91
	A9	5,286,296	02/15/94	Sato et al.	118	719	01/09/92
	A10	5,609,689	03/11/97	Kato et al.	118	719	06/03/96
	A11	5,667,592	09/16/97	Boitnott et al.	118	719	04/16/96
	A12	5,674,786	10/07/97	Turner et al.	437	225	06/05/95
	A13	5,695,564	12/09/97	Imahashi	118	719	08/03/95
	A14	5,730,801	03/24/98	Tepman et al.	118	719	08/23/94
	A15	5,788,447	08/04/98	Yonemitsu et al.	414	217	08/05/96
	A16	5,788,799	08/04/98	Steger, et al.	156	345	06/11/96
	A17	5,801,634	09/01/98	Young et al.	340	635	09/08/97
	A18	5,856,219	01/05/99	Naito et al.	438	241	08/18/97
	A19	5,866,213	02/02/99	Foster et al.	427	573	07/19/97
	A20	5,866,795	02/02/99	Wang et al.	73	1.36	03/17/97
	A21	5,882,165	03/16/99	Maydan et al.	414	217	09/10/97

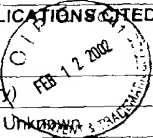
Examiner

Date Considered

11/19/03

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with your communication to applicant.

U.S. Department of Commerce, Patent and Trademark Office (PTO Form 1449 modified)		Docket No. APPM/8303	Serial No. 09/965,370
LIST OF PATENTS AND PUBLICATIONS CITED BY APPLICANT		Applicant Chung, et al.	Confirmation No.:
(Use several sheets if necessary)		Filing Date September 26, 2001	Group Unknown
Examiner	Unknown		



COPY OF PAPERS
ORIGINALLY FILED

U.S. Patent Documents

*Examiner Initial		Document Number	Issue Date	Applicant(s) Name	Class	Subclass	Filing Date If Appropriate
EE	A1	6,268,291	07-31-2001	Andricacos et al.	438	694	12-03-1998
	A2	6,249,055	06-19-2001	Dubin	257	758	02-03-1998
	A3	6,160,315	12-12-2000	Chiang et al.	257	762	01-06-2000
	A4	6,066,892	05-23-2000	Ding et al.	257	751	05-14-1998
	A5	6,037,257	03-14-2000	Chiang et al.	438	687	05-08-1997
	A6	5,744,394	04-28-1998	Iguchi et al.	438	276	04-23-1997
EE	A7	5,654,232	08-05-1997	Gardner	438	661	03-15-1996
	A8						
	A9						
	A10						
	A11						
	A12						

Foreign Patent Documents

*Examiner Initial		Document Number	Date	Country	Class	Subclass	Translation	
							YES	NO
	B1						<input type="checkbox"/>	<input type="checkbox"/>
	B2						<input type="checkbox"/>	<input type="checkbox"/>
	B3						<input type="checkbox"/>	<input type="checkbox"/>
	B4						<input type="checkbox"/>	<input type="checkbox"/>
	B5						<input type="checkbox"/>	<input type="checkbox"/>

RECEIVED
MAR 12 2002
TC 1700

OTHER ART

*Examiner Initial		Including Author, Title, Date, Pertinent Pages, Etc.
EE	C1	USSN 09/518,004. Filed March 2 2000

RECEIVED
FEB 20 2002

Examiner

Date Considered

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance with MPEP 609.

U.S. Department of Commerce, Patent and Trademark Office (PTO Form 1449 modified)	MAK 0 1 2002 MAR 13 2002 PATENT & TRADEMARK OFFICE	Docket No. AMAT/6303/CPI/ CDPPER/PJS	Serial No. 09/965,370
--	--	--	--------------------------

LIST OF PATENTS AND PUBLICATIONS CITED BY APPLICANT

Applicant Chung, et al.	
(Use several sheets if necessary)	Filing Date September 26, 2001
Examiner Unknown	Group Unknown

U.S. Patent Documents

*Examiner Initial	Document Number	Issue Date	Applicant(s) Name	Class	Subclass	Filing Date If Appropriate
ef	A118	2001/0011526	Doering, et al.	118	729	01/16/2001
	A119	2001/0031562	Raaijmakers, et al.	438	770	02/22/2001
	A120	2001/0034123	Jeon, et al.	438	643	04/06/2001
	A121					
ef	A122					
	A123					

Foreign Patent Documents

*Examiner Initial	Document Number	Date	Country	Class	Subclass	Translation	
						YES	NO
ef	B34	2001-62244	03/13/2001	JP	B01D 53/34		X
	B35	198 20 147	07/01/1999	DE	H01L 21/3205		X
	B36	196 27 017	01/09/1997	DE	H01L 21/283		X
	B37	2 626 110	07/21/1989	FR	H01L 39/24		X
	B38	2 692 597	12/24/1993	FR	C23C 16/00		X
ef	B39	2 355 727A	05/02/12001	GB	C23C 16/44		X

OTHER ART

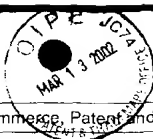
*Examiner Initial		Including Author, Title, Date, Pertinent Pages, Etc.
ef	C18	Min, et al., "Chemical Vapor Deposition of Ti-Si-N Films with Alternating Source Supply", <i>Mat. Res. Soc. Symp. Proc.</i> , Vol. 564 (Apr. 5, 1999), pp. 207-210
	C19	Bedair, "Atomic layer epitaxy deposition processes", <i>J. Vac. Sci. Technol.</i> 12(1) (Jan/Feb 1994)
	C20	Yamaga, et al., "Atomic layer epitaxy of ZnS by a new gas supplying system in a low-pressure metalorganic vapor phase epitaxy", <i>J. of Crystal Growth</i> 117 (1992), pp. 152-155
ef	C21	Elam, et al., "Nucleation and growth during tungsten atomic layer deposition on SiO ₂ surfaces," <i>Thin Solid Films</i> 386 (2001) Pages 41 - 52. (Accepted Dec 14, 2000).

Examiner

Applicant

Date

11/18/03



U.S. Department of Commerce, Patent and Trademark Office (PTO Form 1449 modified)		Docket No. AMAT/6303/CPI/ COPPER/PJS	Serial No. 09/965,370
LIST OF PATENTS AND PUBLICATIONS CITED BY APPLICANT		Applicant Chung, et al.	
(Use several sheets if necessary)		Filing Date September 26, 2001	Group Unknown
Examiner Unknown			

U.S. Patent Documents

*Examiner Initial		Document Number	Issue Date	Applicant(s) Name	Class	Subclass	Filing Date if Appropriate
EF	A55	5,458,084	10/17/95	Thorne et al.	117	89	12/09/1993
	A56	5,469,806	11/28/95	Mochizuki et al.	117	97	08/20/1993
	A57	5,480,818	01/02/96	Matsumoto et al.	437	40	02/09/1993
	A58	5,483,919	01/16/96	Yokoyama et al.	117	89	08/17/1994
	A59	5,484,664	01/16/96	Kitahara et al.	428	641	01/21/1994
	A60	5,503,875	04/02/96	Imai et al.	427	255.3	03/17/1994
	A61	5,521,126	05/28/96	Okamura et al.	437	235	06/22/1994
	A62	5,527,733	06/18/96	Nishizawa et al.	437	160	02/18/1994
	A63	5,532,511	07/02/96	Nishizawa et al.	257	627	03/23/1995
	A64	5,540,783	07/30/96	Eres et al.	118	725	05/26/1994
	A65	5,601,651	02/11/97	Watabe	118	715	12/14/1994
	A66	5,616,181	04/01/97	Yamamoto et al.	118	723 ER	11/21/1995
EF	A67	5,637,530	06/10/97	Gaines et al.	114	105	06/10/1996

Foreign Patent Documents

*Examiner Initial	Document Number	Date	Country	Class	Subclass	Translation	
						YES	NO
EF	B17	99/41423 A2	08/19/1999	WO	C23C	---	X
EF	B18	99/29924 A1	06/17/1999	WO	C23C	16/04	X
EX	B19	96/18756 A1	06/20/1996	WO	C23C	16/08	X

OTHER ART

*Examiner Initial		Including Author, Title, Date, Pertinent Pages, Etc.
EF	C8	Ritala, et al., "Perfectly conformal TiN and Al ₂ O ₃ films deposited by atomic layer deposition", <i>Chemical Vapor Deposition</i> , Vol. 5(1) (January 1999), pp. 7-9.
EX	C9	Klaus, et al., "Atomically controlled growth of tungsten and tungsten nitride using sequential surface reactions" <i>Appl. Surf. Sci.</i> Vol. 162-163 (2000) pp. 470-494.

SEARCHED BY [Signature] INDEXED BY [Signature] SERIALIZED BY [Signature] FILED BY [Signature] 11/19/03
through citation if not in conformance and not considered. Include copy of this form with your communication to applicant.

U.S. Department of Commerce, Patent and Trademark Office
(PTO Form 1449 modified)

Docket No.

Serial No.

AMAT/6303/CPI/
COPPER/PJS

09/965,370

LIST OF PATENTS AND PUBLICATIONS CITED BY APPLICANT

Applicant

Chung, et al.

(Use several sheets if necessary)

Filing Date

Group

Examiner Unknown

September 26, 2001

Unknown

U.S. Patent Documents

*Examiner Initial		Document Number	Issue Date	Applicant(s) Name	Class	Subclass	Filing Date If Appropriate
EF	A106	6,200,893	03/13/2001	Sneh	438	685	03/11/1998
	A107	6,203,613	03/20/2001	Gates, et al.	117	104	10/19/1999
	A108	6,207,302	03/27/2001	Sugiura, et al.	428	690	03/02/1998
	A109	6,248,605	06/19/2001	Harkonen, et al.	438	29	06/02/1999
	A110	6,270,572	08/07/2001	Kim, et al.	117	93	08/09/1999
	A111	6,287,965	09/11/2001	Kang, et al.	438	648	02/23/2000
	A112	6,291,876	09/18/2001	Stumborg, et al.	257	632	08/20/1998
	A113	6,305,314	10/23/2001	Sneh, et al.	118	723 R	12/17/1999
	A114	6,306,216	10/23/2001	Kim, et al.	118	725	07/12/2000
	A115	6,316,098	11/13/2001	Yitzchaik, et al.	428	339	03/23/1999
	A116	2001/0000866	05/10/2001	Sneh, et al.	118	723 R	11/29/2000
EF	A117	2001/0009140	07/26/2001	Bondestam, et al.	118	725	01/25/2001

Foreign Patent Documents

*Examiner Initial	Document Number	Date	Country	Class	Subclass	Translation	
						YES	NO
EF	B30	04-031396 A	02/03/1992	JP	C30B	25/14	X
	B31	06-291048	10/18/1994	JP	H01L	21/205	X
	B32	08-264530	10/11/1996	JP	H01L	21/3205	X
EF	B33	11-269652	10/05/1999	JP	C23C	16/44	X

OTHER ART

*Examiner Initial	Including Author, Title, Date, Pertinent Pages, Etc.
EF	C16 Lee, "The Preparation of Titanium-Based Thin Film by CVD Using Titanium Chlorides as Precursors", <i>Chemical Vapor Deposition</i> , 5(2) (Mar. 1999), pp. 69-73.
EF	C17 Martensson, et al., "Atomic Layer Epitaxy of Copper, Growth & Selectivity in the Cu (II)-2,2,6,6-Tetramethyl-3, 5-Heptanedione ATE/H ₂ Process", <i>J. Electrochem. Soc.</i> 145(8) (Aug. 1998) pp.

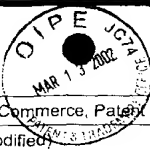
EXAMINER: [Signature] 11/16/03
through citation if not in conformance and not considered. Include copy of this form with your communication to applicant.

U.S. Department of Commerce, Patent and Trademark Office (PTO Form 1449 modified)				Docket No. AMAT/6303/CPI/ COPPER/PJS		Serial No. 09/965,370	
LIST OF PATENTS AND PUBLICATIONS CITED BY APPLICANT				Applicant Chung, et al.			
(Use several sheets if necessary)				Filing Date		Group	
				September 26, 2001		Unknown	
U.S. Patent Documents							
*Examiner Initial	Document Number	Issue Date	Applicant(s) Name	Class	Subclass	Filing Date if Appropriate	
EF	A94	6,001,669	12/14/99	Gaines et al.	438	102	07/21/1992
	A95	6,015,590	01/18/00	Suntola et al.	427	255.23	11/28/1995
	A96	6,025,627	02/15/00	Forbes et al.	257	321	05/29/1998
	A97	6,036,773	03/14/00	Wang et al.	117	97	03/27/1997
	A98	6,042,652	03/28/00	Hyun et al.	118	719	09/07/1999
	A99	6,043,177	03/28/00	Falconer et al.	502	4	01/21/1997
	A100	6,124,158	09/26/00	Dautartas et al.	438	216	06/08/1999
	A101	6,113,977	09/05/00	Soininen et al.	427	64	09/11/1997
	A102	6,130,147	10/10/00	Major et al.	438	604	03/18/1997
	A103	6,139,700	10/31/00	Kang et al.	204	192.17	09/30/1998
	A104	6,174,377	01/16/2001	Doering, et al.	118	729	01/04/1999
EF	A105	6,174,809	01/16/2001	Kang, et al.	438	682	12/15/1998
Foreign Patent Documents							
*Examiner Initial	Document Number	Date	Country	Class	Subclass	Translation	
						YES	NO
EF	B27	60-065712 A	04/15/1985	JP	C01B	33/113	X
EF	B28	03-048421	03/01/1991	JP	H01L	21/302	X
EF	B29	03-286531	12/17/1991	JP	H01L	21/316	X
OTHER ART							
*Examiner Initial	Including Author, Title, Date, Pertinent Pages, Etc.						
EF	C13	Martensson, et al., "Atomic Layer Epitaxy of Copper on Tantalum", <i>Chemical Vapor Deposition</i> , 3(1) (Feb. 1, 1997), pp. 45-50.					
EF	C14	Ritala, et al., "Atomic Layer Epitaxy Growth of TiN Thin Films", <i>J. Electrochem. Soc.</i> , 142(8) (Aug 1995), pp. 2731-737.					
EF	C15	Elers et al. "NbC15 as a precursor in atomic layer epitaxy" <i>Appl. Surf. Sci.</i> Vol. 82/83 (1994) pp.					

EXAMINER: If not in reference considered, whistle of litigation is in conformance with RFLP Sec. Draw line through citation if not in conformance and not considered. Include copy of this form with your communication to applicant.

U.S. Department of Commerce, Patent and Trademark Office (PTO Form 1449 modified)					Docket No. AIA11/6303/CP// COPPER/PJS		Serial No. 09/965,370	
LIST OF PATENTS AND PUBLICATIONS CITED BY APPLICANT					Applicant Chung, et al.			
(Use several sheets if necessary)					Filing Date September 26, 2001		Group Unknown	
Examiner Unknown								
U.S. Patent Documents								
*Examiner Initial	Document Number	Issue Date	Applicant(s) Name	Class	Subclass	Filing Date if Appropriate		
EF	A81	5,851,849	12/22/98	Comizzoli et al.	438	38	05/22/1997	
	A82	5,855,675	01/05/99	Doering et al.	118	719	03/03/1997	
	A83	5,855,680	01/05/99	Soininen et al.	118	719	11/28/1995	
	A84	5,856,102	01/12/99	Tsai	118	719	02/14/1998	
	A85	5,879,459	03/09/99	Gadgil et al.	118	715	08/29/1997	
	A86	5,904,565	05/18/1999	Nguyen, et al.	438	687	07/17/1997	
	A87	5,916,365	06/29/99	Sherman	117	92	08/16/1996	
	A88	5,923,056	07/13/99	Lee et al.	257	192	03/12/1998	
	A89	5,923,985	07/13/99	Aoki et al.	438	301	01/14/1997	
	A90	5,925,574	07/20/99	Aoki et al.	437	31	04/10/1992	
	A91	5,942,040	08/24/99	Kim et al.	118	726	08/27/1997	
	A92	5,947,710	09/07/1999	Cooper, et al.	418	63	06/16/1997	
EF	A93	5,972,430	10/26/99	DiMeo, Jr. et al.	427	255.32	11/26/1997	
Foreign Patent Documents								
*Examiner Initial	Document Number	Date	Country	Class	Subclass	Translation		
						YES	NO	
EF	B24	0 442 490 A1	02/14/1991	EP	C30B	25/02		X
EP	B25	0 344 352 A1	06/03/1988	EP	H01L	39/24		X
EP	B26	62-091495 A	04/25/1987	JP	C30B	25/02		X
OTHER ART								
*Examiner Initial		Including Author, Title, Date, Pertinent Pages, Etc.						
EF	C11	Klaus, et al., "Atomic Layer Deposition of Tungsten using Sequential Surface Chemistry with a Sacrificial Stripping Reaction," Thin Solid Films 360 (2000), Pages 145 - 153, (Accepted Nov. 16, 1999).						
EF	C12	Min, et al. "Metal-Organic Atomic-Layer Deposition of Titanium-Silicon-Nitride Films" Applied						

EXAMINER Initial Reference considered. Whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with your communication to applicant.



U.S. Department of Commerce, Patent and Trademark Office (PTO Form 1449 modified)		Docket No. AMAT/6303/CPI/ COPPER/PJS	Serial No. 09/965,370
LIST OF PATENTS AND PUBLICATIONS CITED BY APPLICANT		Applicant Chung, et al.	
(Use several sheets if necessary)		Filing Date September 26, 2001	Group Unknown
Examiner Unknown			

U.S. Patent Documents

*Examiner Initial		Document Number	Issue Date	Applicant(s) Name	Class	Subclass	Filing Date If Appropriate
EF	A68	5,641,984	06/24/97	Aftergut et al.	257	433	08/19/1994
	A69	5,644,128	07/01/97	Wollnik et al.	250	251	08/25/1994
	A70	5,693,139	12/02/97	Nishizawa et al.	117	89	06/15/1993
	A71	5,705,224	01/06/98	Murota et al.	427	248.1	01/31/1995
	A72	5,707,880	01/13/98	Aftergut et al.	437	3	01/17/1997
	A73	5,711,811	01/27/98	Suntola et al.	118	711	11/28/1995
	A74	5,730,802	03/24/98	Ishizumi et al.	118	719	12/27/1996
	A75	5,747,113	05/05/98	Tsai	427	255.5	07/29/1996
	A76	5,749,974	05/12/98	Habuka et al.	118	725	07/13/1995
	A77	5,796,116	08/18/98	Nakata et al.	257	66	07/25/1995
	A78	5,807,792	09/15/98	Ilg et al.	438	758	12/18/1996
	A79	5,830,270	11/03/98	McKee et al.	117	106	08/05/1996
EF	A80	5,835,677	11/10/98	Li et al.	392	401	10/03/1996

Foreign Patent Documents

*Examiner Initial	Document Number	Date	Country	Class	Subclass	Translation	
						YES	NO
EF	B20	96/17107 A1	06/06/1996	WO	C23C	16/44	X
	B21	93/02111 A1	02/04/1993	WO	C08F	4/78	X
	B22	91/10510 A1	07/25/1991	WO	B01J	37/02	X
EF	B23	0 799 641 A2	10/08/1997	EP	B01J	20/32	X

OTHER ART

*Examiner Initial	Including Author, Title, Date, Pertinent Pages, Etc.
EF	C10 Min, et al., "Atomic layer deposition of TiN thin films by sequential introduction of Ti precursor and NH/sub3", Symp.: Advanced Interconnects and Contact Materials and Processes for Future Integrated Circuits (Apr. 12-16, 1999) pp. 227-232

through citation if not in conformance and not considered. Include copy of this form with your communication to applicant.

11/14/03

U.S. Department of Commerce, Patent and Trademark Office
(PTO Form 1449 modified)

Docket No. AMAT/6303/CPI/
COPPER/PJS
Serial No. 09/965,370

LIST OF PATENTS AND PUBLICATIONS CITED BY APPLICANT

(Use several sheets if necessary)

Applicant
Chung, et al.

Filing Date
September 26, 2001
Group
Unknown

U.S. Patent Documents

*Examiner Initial		Document Number	Issue Date	Applicant(s) Name	Class	Subclass	Filing Date If Appropriate
EF	A41	5,316,615	05/31/94	Copel	117	95	03/09/1993
	A42	5,316,793	05/31/94	Wallace et al.	427	248.1	07/27/1992
	A43	5,330,610	07/19/94	Eres et al.	117	86	05/28/1993
	A44	5,336,324	08/09/94	Stall et al.	118	719	12/04/1991
	A45	5,338,389	08/16/94	Nishizawa et al.	117	89	04/21/1993
	A46	5,348,911	09/20/94	Jurgensen et al.	117	91	04/26/1993
	A47	5,374,570	12/20/94	Nasu et al.	437	40	08/19/1993
	A48	5,395,791	03/07/95	Cheng et al.	437	105	10/20/1993
	A49	5,438,952	08/08/1995	Otsuka	117	84	01/31/1994
	A50	5,439,876	08/08/95	Graf et al.	505	447	08/16/1993
	A51	5,441,703	08/15/95	Jurgensen	422	129	03/29/1994
	A52	5,443,033	08/22/95	Nishizawa et al.	117	86	03/11/1994
	A53	5,443,647	08/22/95	Aucoin et al.	118	723 ME	07/11/1994
	EF	A54	5,455,072	10/03/95	Bension et al.	427	255.7

Foreign Patent Documents

*Examiner Initial	Document Number	Date	Country	Class	Subclass	Translation	
						YES	NO
EF	B13	00/54320 A1	09/14/2000	WO	H01L	21/44	X
	B14	00/16377 A2	03/23/2000	WO	H01L	---	X
	B15	00/15881 A2	03/23/2000	WO	C30B	---	X
EF	B16	00/15865 A1	03/23/2000	WO	G23C	16/00	X

OTHER ART

*Examiner Initial		Including Author, Title, Date, Pertinent Pages, Etc.
EF	C7	Niinisto, et al., "Synthesis of oxide thin films and overlayers by atomic layer epitaxy for advanced applications", <i>Mat. Sci. & Eng.</i> , Vol. B41 (1996), pp. 23-29

Through citation in this document, applicant has indicated that applicant is not aware of any other art that is pertinent to the invention. Applicant hereby certifies that the information provided in this document is true and correct to the best of applicant's knowledge and belief.

11/14/03

U.S. Department of Commerce, Patent and Trademark Office (PTO Form 1449 modified)		Docket No. AMAT/6303/CP1/ COPPER/PJS	Serial No. 09/965,370
LIST OF PATENTS AND PUBLICATIONS CITED BY APPLICANT		Applicant Chung, et al.	
(Use several sheets if necessary)		Filing Date September 26, 2001	Group Unknown
Examiner Unknown			

U.S. Patent Documents

*Examiner Initial		Document Number	Issue Date	Applicant(s) Name	Class	Subclass	Filing Date If Appropriate
EF	A28	5,225,366	07/06/93	Yoder	437	108	06/22/1990
I	A29	5,246,536	09/21/93	Nishizawa et al.	156	610	03/10/1989
	A30	5,250,148	10/05/93	Nishizawa et al.	156	611	11/12/1991
	A31	5,254,207	10/19/93	Nishizawa et al.	156	601	11/30/1992
	A32	5,256,244	10/26/93	Ackerman	156	613	02/10/1992
	A33	5,270,247	12/14/93	Sakuma et al.	437	133	07/08/1992
	A34	5,278,435	01/11/94	Van Hove et al.	257	184	06/08/1992
	A35	5,281,274	01/25/94	Yoder	118	697	02/04/1993
	A36	5,290,748	03/01/94	Knuuttila et al.	502	228	07/16/1992
	A37	5,294,286	03/15/94	Nishizawa et al.	156	610	01/12/1993
	A38	5,296,403	03/22/94	Nishizawa et al.	437	133	10/23/1992
EF	A39	5,300,186	04/05/94	Kitahara et al.	156	613	04/07/1992
	A40	5,311,055	05/10/94	Goodman et al.	257	593	11/22/1991

Foreign Patent Documents

*Examiner Initial	Document Number	Date	Country	Class	Subclass	Translation	
						YES	NO
EF	B10	00/79576 A1	12/28/2000	WO	H01L	21/205	X
EF	B11	00/79019 A1	12/28/2000	WO	C23C	16/00	X
EF	B12	00/63957 A1	10/26/2000	WO	H01L	21/205	X

OTHER ART

*Examiner Initial	Including Author, Title, Date, Pertinent Pages, Etc.
EF	C5 George, et al., "Atomic layer controlled deposition of SiO ₂ and Al ₂ O ₃ using ABAB... binary reaction sequence chemistry", <i>Appl. Surf. Sci.</i> , Vol. 82/83 (1994), pp. 460-467.
EF	C6 Wise, et al., "Diethyldiethoxysilane as a new precursor for SiO ₂ growth on silicon", <i>Mat. Res. Soc. Symp. Proc.</i> , Vol. 224 (1999), pp. 27-32.

through citation if not in conformance and not considered. Include copy of this form with your communication to applicant.

U.S. Department of Commerce, Patent and Trademark Office (PTO Form 1449 modified)					Docket No. AMAT/6303/CP1/ COPPER/PJS		Serial No. 09/965,370	
LIST OF PATENTS AND PUBLICATIONS CITED BY APPLICANT					Applicant Chung, et al.			
(Use several sheets if necessary)					Filing Date September 26, 2001		Group Unknown	
Examiner Unknown								
U.S. Patent Documents								
*Examiner Initial	Document Number	Issue Date	Applicant(s) Name	Class	Subclass	Filing Date If Appropriate		
EF	A14	4,859,627	08/22/89	Sunakawa	437	81	07/01/1988	
	A15	4,861,417	08/29/89	Mochizuki et al.	156	610	03/24/1988	
	A16	4,876,218	10/24/89	Pessa et al.	437	107	09/26/1988	
	A17	4,927,670	05/22/1990	Erbil	427	255.3	06/22/1988	
	A18	4,931,132	06/05/90	Aspnes et al.	156	601	10/07/1988	
	A19	4,960,720	10/02/90	Shimbo	437	105	08/24/1987	
	A20	4,975,252	12/04/90	Nishizawa et al.	422	245	05/26/1989	
	A21	4,993,357	02/19/91	Scholz	118	715	12/21/1989	
	A22	5,013,683	05/07/91	Petroff et al.	437	110	01/23/1989	
	A23	5,082,798	01/21/92	Arimoto	437	108	09/27/1990	
	A24	5,085,885	02/04/92	Foley et al.	477	38	09/10/1990	
	A25	5,091,320	02/25/92	Aspnes et al.	437	8	06/15/1990	
	A26	5,130,269	07/14/92	Kitahara et al.	437	111	04/25/1989	
CE	A27	5,166,092	11/24/92	Mochizuki et al.	437	105	10/30/1990	
Foreign Patent Documents								
*Examiner Initial	Document Number	Date	Country	Class	Subclass	Translation		
						YES	NO	
EF	B6	01/29280 A1	04/26/2001	WO	C23C	16/32		X
	B7	01/27347 A1	04/19/2001	WO	C23C	16/44		X
	B8	01/27346 A1	04/19/2001	WO	C23C	16/44		X
EF	B9	01/15220 A1	03/01/2001	WO	H01L	21/768		X
OTHER ART								
*Examiner Initial	Including Author, Title, Date, Pertinent Pages, Etc.							

EF C3 Yamaguchi, et al. "Atomic-layer chemical-vapor-deposition of silicon dioxide films with extremely low hydrogen

Examiner: *[Signature]*

Date Considered: 11/16/03

*EXAMINER Initial: Reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with your communication to applicant.

U.S. Department of Commerce, Patent and Trademark Office (PTO Form 1449, 10/01/00)				Docket No. AMAT/6303/CPI/ COPPER/PJS		Serial No. 09/965,370	
LIST OF PATENTS AND PUBLICATIONS CITED BY APPLICANT MAR 13 2002				Applicant Chung, et al.			
(Use several sheets if necessary)				Filing Date September 26, 2001		Group Unknown	
Examiner Unknown							
U.S. Patent Documents							
*Examiner Initial		Document Number	Issue Date	Applicant(s) Name	Class	Subclass	Filing Date If Appropriate
EF	A1	4,058,430	11/15/77	Suntola et al.	156	611	11/25/1975
	A2	4,389,973	06/28/83	Suntola et al.	118	725	12/11/1981
	A3	4,413,022	11/01/83	Suntola et al.	427	255.2	06/21/1979
	A4	4,486,487	12/04/84	Skarp	428	216	04/25/1983
	A5	4,767,494	08/30/88	Kobayashi et al.	156	606	09/19/1986
	A6	4,806,321	02/21/89	Nishizawa et al.	422	245	07/21/1985
	A7	4,829,022	05/09/89	Kobayashi et al.	437	107	12/09/1986
	A8	4,834,831	05/30/89	Nishizawa et al.	156	611	09/04/1987
	A9	4,838,983	06/13/89	Schumaker et al.	156	613	03/18/1988
	A10	4,838,993	06/13/89	Aoki et al.	156	643	12/03/1987
	A11	4,840,921	06/20/89	Matsumoto	437	89	06/30/1988
	A12	4,845,049	07/04/89	Sunakawa	437	81	03/28/1988
EF	A13	4,859,625	08/22/89	Nishizawa et al.	437	81	11/20/1987
Foreign Patent Documents							
*Examiner Initial		Document Number	Date	Country	Class	Subclass	Translation
							YES NO
EF	B1	01/66832 A2	09/13/2001	WO	C30B	16/44	X
	B2	01/40541 A1	06/07/2001	WO	C23C	16/40	X
	B3	01/36702 A1	05/25/2001	WO	C23C	16/00	X
EF	B4	01/29893 A1	04/26/2001	WO	H01L	21/768	X
EF	B5	01/29891 A1	04/26/2001	WO	H01L	21/768	X
OTHER ART							
*Examiner Initial		Including Author, Title, Date, Pertinent Pages, Etc.					
EF	C1	Hultman, et al., "Review of the thermal and mechanical stability of TiN-based thin films", <i>Zeitschrift Fur Metallkunde</i> , 90(10) (Oct. 1999), pp. 803-813					

*EXAMINER Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with your communication to applicant.

*EXAMINER: Initial if reference considered; whether or not citation is in conformance with MPEP §§ 608.01 and 608.02.
 citation if not in conformance and not considered. Include copy of this form with your communication to applicant.

U.S. Department of Commerce, Patent and Trademark Office		Docket No.	Serial No.
(PTO Form 1449 modified)		APPM/6303	09/965,370
SUPPLEMENTAL LIST OF PATENTS AND PUBLICATIONS CITED BY APPLICANT		Applicant	Confirmation No.:
		Chung, et al.	Unknown
(Use several sheets if necessary)		Filing Date	Group
Examiner Unknown		September 26, 2001	Unknown
OTHER ART			
*Examiner Initial	Including Author, Title, Date, Pertinent Pages, Etc.		
EF	C1	Ohba, et al., "Thermal Decomposition of Methylhydrazine and Deposition Properties of CVD TiN Thin Films", Conference Proceedings, Advanced Metallization for ULSI Applications in 1993 (1994), pp. 143-149	
	C2	Schoeper, et al., "Low-temperature deposition of titanium nitride films from dialkylhydrazine-based precursors", Materials Science in Semiconductor Processing 2 (1999), pp. 149-157	
	C3	Suzuki, et al., "A 0.2- μ m contact filling by 450°C-hydrazine-reduced TiN film with low resistivity", IEDM 92-979, pp. 11.8.1 - 11.8.3	
	C4	Suzuki, et al., "LPCVD-TiN Using Hydrazine and TiCl_4 ", VMIC Conference (June 8-9, 1993), pp. 418-423	
	C5	IBM Tech. Disc. Bull. "Knowledge-Based Dynamic Scheduler in Distributed Computer Control, (June 1990), pp. 80-84	
	C6	IBM Tech. Disc. Bull. "Multiprocessor and Multitasking Architecture for Tool Control of the Advanced via Inspection Tools" (May 1992), pp. 190-191	
	C7	McGeachin, S., "Synthesis and properties of some β -diketimines derived from acetylacetone, and their metal complexes", Canadian J. of Chemistry, Vol. 46 (1968), pp.1903-1912	
	C8	Solanki, et al., "Atomic Layer deposition of Copper Seed Layers", Electrochemical and Solid State Letters, 3(10) (2000), pp. 479-480	
	C9	NERAC.COM Retro Search: Atomic Layer Deposition of Copper, dated October 11, 2001	
	C10	NERAC.COM Retro Search: Atomic Layer Deposition / Epitaxy Aluminum Oxide Plasma, dated October 2, 2001	
	C11	NERAC Search abstract of "Atomic Layer deposition of Ta and Ti for Interconnect Diffusion Barriers", by Rossnagel, et al., J. Vac. Sci. & Tech., 18(4) (July 2000)	
	C12	Abstracts of articles re atomic layer deposition	
	C13	Abstracts of search results re atomic layer deposition, search dated January 24, 2002	

RECEIVED
APR 23 2002
TC 1700

EF

Examiner

Date Considered 9/19/03

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with your communication to applicant

U.S. Department of Commerce, Patent and Trademark Office						Docket No.	Serial No.	
(PTO Form 1449 modified)						APPM/6303	09/965,370	
SUPPLEMENTAL LIST OF PATENTS AND PUBLICATIONS CITED BY APPLICANT						Applicant	Confirmation No.:	
						Chung, et al.	Unknown	
(Use several sheets if necessary)						Filing Date	Group	
Examiner Unknown						September 26, 2001	Unknown	
Foreign Patent Documents								
*Examiner Initial	Document Number	Date	Country	Class	Subclass	Translation		
						YES	NO	
EF	B145	2001-220287	08/14/2001	JP	C30B	25/02	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B146	2001-220294	08/14/2001	JP	C30B	29/20	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B147	2001-240972	09/04/2001	JP	C23C	16/458	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	B148	2001-254181	09/18/2001	JP	C23C	16/46	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	B149	2001-284042	10/12/2001	JP	H05B	33/04	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	B150	2001-303251	10/31/2001	JP	C23C	16/44	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	B151	2001-328900	11/27/2001	JP	C30B	29/68	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	B152	0 429 270 A2	05/29/1991	EP	G03F	7/36	<input type="checkbox"/>	<input type="checkbox"/>
	B153	99/13504	03/18/1999	WO	H01L	21/68	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	B154	01/15220	03/01/2001	WO	H01L	21/768	<input type="checkbox"/>	<input type="checkbox"/>
	B155	00/11721	03/02/2000	WO	H01L	29/43	<input type="checkbox"/>	<input type="checkbox"/>
	B156	90/02216	03/08/1990	WO	C23C	14/34	<input type="checkbox"/>	<input type="checkbox"/>
EP	B157	98/06889	02/19/1998	WO	D06F		<input type="checkbox"/>	<input type="checkbox"/>
RECEIVED APR 23 2002 TC 1700								

Lxdl|||||E|

Date Considered:

11/18/03

*EXAMINER. Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with your communication to applicant.

U.S. Department of Commerce, Patent and Trademark Office (PTO Form 1449 modified)		Docket No. APPM/6303	Serial No. 09/965,370
SUPPLEMENTAL LIST OF PATENTS AND PUBLICATIONS CITED BY APPLICANT		Applicant Chung, et al.	Confirmation No.: Unknown
(Use several sheets if necessary)		Filing Date September 26, 2001	Group Unknown
Examiner Unknown			

**Foreign Patent Documents**

*Examiner Initial		Document Number	Date	Country	Class	Subclass	Translation	
							YES	NO
EF	B120	07-086269	03/13/1995	JP	H01L	21/314	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B121	07-086269	03/13/1995	JP	H01L	21/314	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B122	08-181076	07/12/1996	JP	H01L	21/205	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B123	08-245291	09/24/1996	JP	C30B	25/14	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B124	09-260786	10/03/1997	JP	H01S	3/18	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B125	09-293681	11/11/1997	JP	H01L	21/205	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B126	10-188840	07/21/1998	JP	H01J	29/18	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B127	10-190128	07/21/1998	JP	H01S	3/18	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B128	10-308283	11/17/1998	JP	H05B	33/22	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B129	11-269652	10/05/1999	JP	C23C	16/44	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B130	2000-031387	01/28/2000	JP	H01L	27/04	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B131	2000-058777	02/25/2000	JP	H01L	27/108	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B132	2000-068072	03/03/2000	JP	H05B	33/22	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B133	2000-087029	03/28/2000	JP	C09K	11/08	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B134	2000-138094	05/16/2000	JP	H05B	33/10	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B135	2000-218445	08/08/2000	JP	B23P	6/00	<input type="checkbox"/>	<input type="checkbox"/>
	B136	2000-319772	11/21/2000	JP	C23C	14/24	<input type="checkbox"/>	<input type="checkbox"/>
	B137	2000-319772	03/28/2000	JP	C23C	16/00	<input type="checkbox"/>	<input type="checkbox"/>
	B138	2000-340883	12/08/2000	JP	H01S	5/125	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B139	2000-353666	12/19/2000	JP	H01L	21/205	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B140	2001-020075	01/23/2001	JP	C23C	16/44	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B141	2001-152339	06/05/2001	JP	C23C	16/40	<input type="checkbox"/>	<input type="checkbox"/>

RECEIVED
APR 23 2002
TCT 1700

EF	B144	2001-217206	08/16/2001	JP	H01L	21/285	<input type="checkbox"/>	<input type="checkbox"/>
Examiner					Date Considered	11/19/03		

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with your communication to applicant.

RECEIVED

APR 23 2002

TC 1700

Sheet 7 of 11 sheet(s)

U.S. Department of Commerce, Patent and Trademark Office (PTO Form 1449 modified)		Docket No. APPM/6303	Serial No. 09/965,370
SUPPLEMENTAL LIST OF PATENTS AND PUBLICATIONS CITED BY APPLICANT		Applicant Chung, et al.	Confirmation No.: Unknown
(Use several sheets if necessary)		Filing Date September 26, 2001	Group Unknown
Examiner Unknown			



Foreign Patent Documents

*Examiner Initial		Document Number	Date	Country	Class	Subclass	Translation	
							YES	NO
EP	B97	05-175143	07/13/1993	JP	H01L	21/205	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B98	05-175145	07/13/1993	JP	H01L	21/205	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B99	05-182906	07/23/1993	JP	H01L	21/20	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B100	05-186295	07/27/1993	JP	C30B	25/02	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B101	05-206036	08/13/1993	JP	H01L	21/205	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B102	05-234899	09/10/1993	JP	H01L	21/205	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B103	05-235047	09/10/1993	JP	H01L	21/338	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B104	05-251339	09/28/1993	JP	H01L	21/20	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B105	05-270997	10/19/1993	JP	C30B	29/68	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B106	05-283336	10/29/1993	JP	H01L	21/20	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B107	05-291152	11/05/1993	JP	H01L	21/205	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B108	05-304334	11/16/1993	JP	H01L	3/18	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B109	05-343327	12/24/1993	JP	H01L	21/205	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B110	05-343685	12/24/1993	JP	H01L	29/784	<input type="checkbox"/>	<input type="checkbox"/>
	B111	06-045606	02/18/1994	JP	H01L	29/784	<input type="checkbox"/>	<input type="checkbox"/>
	B112	06-132236	05/13/1994	JP	H01L	21/205	<input type="checkbox"/>	<input type="checkbox"/>
	B113	06-177381	06/24/1994	JP	H01L	29/784	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B114	06-196809	07/15/1994	JP	H01S	3/18	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B115	06-222388	08/12/1994	JP	G02F	1/136	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B116	06-224138	08/12/1994	JP	H01L	21/205	<input type="checkbox"/>	<input type="checkbox"/>

EP	B119	07-070752	03/14/1995	JP	C23C	16/40	<input type="checkbox"/>	<input type="checkbox"/>
Examiner					Date Considered	11/13/03		

*EXAMINER Initial if reference considered, whether or not citation is in accordance with MPEP 609. Draw the line through the citation if not in accordance and not considered. Include copy of this form with your communication to applicant.

U.S. Department of Commerce, Patent and Trademark Office (PTO Form 1449 modified)		Docket No. APPM/6303	Serial No. 09/965,370
SUPPLEMENTAL LIST OF PATENTS AND PUBLICATIONS CITED BY APPLICANT		Applicant Chung, et al.	Confirmation No.: Unknown
(Use several sheets if necessary)		Filing Date September 26, 2001	Group Unknown
Examiner Unknown			

**Foreign Patent Documents**

*Examiner Initial		Document Number	Date	Country	Class	Subclass	Translation	
							YES	NO
IC	B73	04-031396	02/03/1992	JP	C30B	25/14	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B74	04-100292	04/02/1992	JP	H01S	3/18	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B75	04-111418	04/13/1992	JP	H01L	21/205	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B76	04-132214	05/06/1992	JP	H01L	21/205	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B77	04-132681	05/06/1992	JP	C30B	25/14	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B78	04/151822	05/25/1992	JP	H01L	21/205	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B79	04-162418	06/05/1992	JP	H01L	21/205	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B80	04-175299	06/23/1992	JP	C30B	29/68	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B81	04-186824	07/03/1992	JP	H01L	21/205	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B82	04-212411	08/04/1992	JP	H01L	21/203	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B83	04-260696	09/16/1992	JP	C30B	29/40	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B84	04-273120	09/29/1992	JP	H01L	21/20	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B85	04-285167	10/09/1992	JP	C23C	14/54	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B86	04-291916	10/16/1992	JP	H01L	21/205	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B87	04-325500	11/13/1992	JP	C30B	33/00	<input type="checkbox"/>	<input type="checkbox"/>
	B88	04-328874	11/17/1992	JP	H01L	29/804	<input type="checkbox"/>	<input type="checkbox"/>
	B89	05-029228	02/05/1993	JP	H01L	21/205	<input type="checkbox"/>	<input type="checkbox"/>
	B90	05-047665	02/26/1993	JP	H01L	21/205	<input type="checkbox"/>	<input type="checkbox"/>
	B91	05-047666	02/26/1993	JP	H01L	21/205	<input type="checkbox"/>	<input type="checkbox"/>
	B92	05-047668	02/26/1993	JP	H01L	21/205	<input type="checkbox"/>	<input type="checkbox"/>
	B93	05-074717	03/26/1993	JP	H01L	21/205	<input type="checkbox"/>	<input type="checkbox"/>

RECEIVED
 APR 23 2002
 TC 1700

Examiner	B96 05-160152 06/25/1993 JP	H01L 21/336
Date Considered	1/19/03	

*EXAMINER Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with your communication to applicant.

U.S. Department of Commerce, Patent and Trademark Office (PTO Form 1449 modified)		Docket No. APPM/6303	Serial No. 09/965,370
SUPPLEMENTAL LIST OF PATENTS AND PUBLICATIONS CITED BY APPLICANT		Applicant Chung, et al.	Confirmation No.: Unknown
(Use several sheets if necessary)		Filing Date September 26, 2001	Group Unknown
Examiner Unknown			

**Foreign Patent Documents**

*Examiner Initial		Document Number	Date	Country	Class	Subclass	Translation	
							YES	NO
CP	B49	02-074587	03/14/1990	JP	C30B	23/08	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B50	02-106822	04/18/1990	JP	H01B	13/00	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B51	02-129913	05/18/1990	JP	H01L	21/205	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B52	02-162717	06/22/1990	JP	H01L	21/20	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B53	02-172895	07/04/1990	JP	C30B	29/36	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B54	02-196092	08/02/1990	JP	C30B	25/14	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B55	02-203517	08/13/1990	JP	H01L	21/205	<input type="checkbox"/>	<input type="checkbox"/>
	B56	02-230690	09/13/1990	JP	H05B	33/10	<input type="checkbox"/>	<input type="checkbox"/>
	B57	02-230722	09/13/1990	JP	H01L	21/205	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B58	02-246161	10/01/1990	JP	H01L	29/784	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B59	02-264491	10/29/1990	JP	H01S	3/18	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B60	02-283084	11/20/1990	JP	H01S	3/18	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B61	02-304916	12/18/1990	JP	H01L	21/205	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B62	03-019211	01/28/1991	JP	H01L	21/205	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B63	03-022569	01/30/1991	JP	H01L	29/804	<input type="checkbox"/>	<input type="checkbox"/>
	B64	03-023294	01/31/1991	JP	C30B	25/18	<input type="checkbox"/>	<input type="checkbox"/>
	B65	03-023299	01/31/1991	JP	C30B	29/40	<input type="checkbox"/>	<input type="checkbox"/>
	B66	03-044967	02/26/1991	JP	H01L	29/48	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B67	03-070124	03/26/1991	JP	H01L	21/205	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B68	03-185716	08/13/1991	JP	H01L	21/205	<input type="checkbox"/>	<input type="checkbox"/>
	B69	03-208885	09/12/1991	JP	C30B	23/02	<input type="checkbox"/>	<input type="checkbox"/>

RECEIVED

APR 23 2002

TC 1700

EX	B72	04-031391	02/03/1992	JP	C30B	23/08	<input type="checkbox"/>	<input type="checkbox"/>
Examiner					Date Considered	11/19/03		

*EXAMINER Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with your communication to applicant.

U.S. Department of Commerce, Patent and Trademark Office (PTO Form 1449 modified)		Docket No. APPM/6303	Serial No. 09/965,370
SUPPLEMENTAL LIST OF PATENTS AND PUBLICATIONS CITED BY APPLICANT		Applicant Chung, et al.	Confirmation No.: Unknown
(Use several sheets if necessary)		Filing Date September 26, 2001	Group Unknown
Examiner Unknown			

**Foreign Patent Documents**

*Examiner Initial		Document Number	Date	Country	Class	Subclass	Translation	
							YES	NO
EP	B25	64-082676	03/28/1989	JP	H01L	29/80	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B26	64-090524	04/07/1989	JP	H01L	21/205	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B27	01-103982	04/21/1989	JP	C30B	23/08	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B28	01-103996	04/21/1989	JP	C30B	29/40	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B29	01-117017	05/09/1989	JP	H01L	21/203	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B30	01-143221	06/05/1989	JP	H01L	21/314	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B31	01-143233	06/05/1989	JP	H01L	21/76	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B32	01-154511	06/16/1989	JP	H01L	21/20	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B33	01-236657	09/21/1989	JP	H01L	29/80	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B34	01-245512	09/29/1989	JP	H01L	21/205	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B35	01-264218	10/20/1989	JP	H01L	21/205	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B36	01-270593	10/27/1989	JP	C30B	25/02	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B37	01-272108	10/31/1989	JP	H01L	21/203	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B38	01-290221	11/22/1989	JP	H01L	21/205	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B39	01-290222	11/22/1989	JP	H01L	21/205	<input type="checkbox"/>	<input type="checkbox"/>
	B40	01-296673	11/30/1989	JP	H01L	29/88	<input type="checkbox"/>	<input type="checkbox"/>
	B41	01-303770	12/07/1989	JP	H01L	39/24	<input type="checkbox"/>	<input type="checkbox"/>
	B42	01-305894	12/11/1989	JP	C30B	23/08	<input type="checkbox"/>	<input type="checkbox"/>
	B43	01-313927	12/19/1989	JP	H01L	21/205	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B44	02-012814	01/17/1990	JP	H01L	21/205	<input type="checkbox"/>	<input type="checkbox"/>
	B45	02-014513	01/18/1990	JP	H01L	21/205	<input type="checkbox"/>	<input type="checkbox"/>

RECEIVED

APR 23 2002

TC 1700

EP	B48	02-074029	03/14/1990	JP	H01L	21/205	<input type="checkbox"/>	<input type="checkbox"/>
Examiner					Date Considered	1/19/03	<input type="checkbox"/>	<input type="checkbox"/>

*EXAMINER Initial if reference considered whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and is not considered. Include copy of this form with your communication to applicant.

U.S. Department of Commerce, Patent and Trademark Office (PTO Form 1449 modified)		ocket No. APPM/6303	Serial No. 09/965,370
SUPPLEMENTAL LIST OF PATENTS AND PUBLICATIONS CITED BY APPLICANT		Applicant Chung, et al.	Confirmation No.: Unknown
(Use several sheets if necessary)		Filing Date September 26, 2001	Group Unknown
Examiner	Unknown		

**Foreign Patent Documents**

*Examiner Initial		Document Number	Date	Country	Class	Subclass	Translation	
							YES	NO
EF	B1	58-098917	06/13/1983	JP	H01L	21/205	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B2	58-100419	06/15/1983	JP	H01L	21/20	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B3	61-035847	02/20/1986	JP	B01J	19/08	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B4	61-210623	09/18/1986	JP	H01L	21/205	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B5	62-069508	03/30/1987	JP	H01L	21/203	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B6	62-141717	06/25/1987	JP	H01L	21/203	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B7	62-167297	07/23/1987	JP	C30B	29/40	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B8	62-171999	07/28/1987	JP	C30B	29/40	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B9	62-232919	10/13/1987	JP	H01L	21/205	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B10	63-062313	03/18/1988	JP	H01L	21/203	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B11	63-085098	04/15/1988	JP	C30B	21/40	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B12	63-090833	04/21/1988	JP	H01L	21/365	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B13	63-222420	09/16/1988	JP	H01L	21/205	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B14	63-222421	09/16/1988	JP	H01L	21/205	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B15	63-227007	09/21/1988	JP	H01L	21/205	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B16	63-252420	10/19/1988	JP	H01L	21/205	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B17	63-266814	11/02/1988	JP	H01L	21/205	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B18	64-009895	01/13/1989	JP	C30B	29/40	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B19	64-009896	01/13/1989	JP	C30B	29/40	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B20	64-009897	01/13/1989	JP	C30B	29/40	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B21	64-037832	02/08/1989	JP	H01L	21/205	<input checked="" type="checkbox"/>	<input type="checkbox"/>

RECEIVED

APR 23 2002

TC 1700

EF
Examiner [Signature] Date Considered 11/18/03

*EXAMINER Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. See note copy of this form with your communication to applicant.

[illegible]

Examiner

Date Considered

*EXAMINER Initial: if reference considered, whether or not citation is in conformance with MPEP 609/Draw line through citation if not in conformance and not considered. (Include copy of this form with your communication to applicant)